

ULTRA-LOW LOOP WIRE BONDING

ABSTRACT OF THE DISCLOSURE

5 A wire bonding technique for manufacturing semiconductor devices that results in
a bonded wire having a small loop height. The wire bonding technique involves a
capillary tool that ball bonds a wire to a first contact point, then moves upwards, and then
towards a second contact point to which the wire will be attached. The capillary tool
only moves towards the second contact point in the lateral direction. The height of the
wire loop of the bonded wires can be controlled to have desired wire loop heights. The
10 bonding technique can be used in semiconductor devices with stacked dice and in devices
where a die and a contact lead are approximately at the same height.